

# Critical retail service factors in literature: a review and meta-analysis approach

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## ABSTRACT

**Purpose:** The assessment and observation of critical service factors within the retail industry have garnered increased importance in recent times, due to their perceived ability to shape superior future strategies. The aim of this study is to investigate the service elements that are deemed essential by consumers in the retail sector, specifically targeting the grocery retail industry.

**Design/Methodology/Approach:** Our methodological framework incorporates a systematic review of previous literature and a meta-analysis of past studies that highlight the pivotal service elements within the chosen industry. Following the evaluation of existing literature, 55 studies met the inclusion criteria and were selected for further investigation. The systematic review first compiled information from multiple studies, which was then followed by a meta-analysis. This enabled us to statistically analyze the empirical data from the chosen studies, thereby drawing significant conclusions.

**Findings:** The analyses pinpoint that elements such as personal interaction attributes, product quality and availability, and reliable service are of utmost importance to consumers. Interestingly, customer satisfaction was the only outcome that was positively influenced by all the examined service attributes. Additionally, our findings underscore that certain moderators, such as geographic region and timing of the study, sway the relationship between service attributes and customer outcomes.

**Originality:** Despite numerous meta-analyses attempting to pinpoint the key service attributes for consumers, to the best of our understanding, this study is the first to focus on the retail industry, specifically on hypermarkets, supermarkets, or grocery stores. Therefore, this research bridges a gap in the literature and offers a significant contribution to the academic community by proposing an agenda for future research on customer service factors. It also provides invaluable insight for retail managers, outlining numerous practical implications and offering guidance.

**Keywords:** Service quality attributes; Customer outcomes; Retail industry; Systematic literature review; Meta-analysis



## INTRODUCTION

In the contemporary landscape, customers wield significantly more purchasing power due to the increased availability of information (Torlak, Uzkurt, & Özmen, 2010). To enhance the customer service level, retailers must offer options that augment the perceived value of their shopping experiences (Kursunluoglu, 2014). Superior customer service, coupled with a high-quality product that meets or surpasses expectations, elevates customer satisfaction and consequently their loyalty (Kursunluoglu, 2014). Conversely, failing to meet these expectations will drive disgruntled customers towards competitors (Umair, Zhang, Han, & Haq, 2019).

As emphasized by Prakash, Somasundaram, and Krishnamoorthy (2018), customer service is crucial for all industries and every company. Since retail business is essentially a service business (Davies, 2006), its characteristics diverge from other industries (Gagliano & Hathcote, 1994). This sector has witnessed rapid evolution over recent decades. Despite these changes, customers continue to value the service quality offered by retailers (Deb & Lomo-David, 2014). Furthermore, Amorim and Saghezchi (2014) propose that understanding the determinants of customer service in retail is pivotal in shaping superior strategies. Therefore, the evaluation and observation of critical customer service factors for this industry become important (Siu & Cheung, 2001). Consequently, the retail service quality scale formulated by Dabholkar, Thorpe, and Rentz (1996) has been upheld as a valid measure for this purpose in numerous contexts.

With this perspective, the aim of this research is to examine the service attributes crucial for customers in the retail grocery industry. To achieve this, our study will amalgamate a systematic literature review with a meta-analysis. Prior studies that identify determinants of service quality attributes in the retail industry will be analyzed. Thus, the central objective of this research is to respond to the following question: What are the critical factors for customer service in the retail grocery industry?

Over time, various meta-analyses have been performed to ascertain the service attributes most important to customers (Jung & Tanford, 2017; Kim & Cruz, 2019; Ladeira, Santini, Sampaio, Perin, & Araújo, 2016; Santini, Ladeira, Sampaio, & Perin, 2018; and Tanford & Jung, 2017). These studies have primarily been conducted in diverse service industries, primarily in tourism (Jung & Tanford, 2017, Tanford & Jung, 2017) and the banking sector (Ladeira et al., 2016; Santini et al., 2018). Additionally, Blut, Teller, and Floh (2018) executed a meta-analysis to pinpoint the most essential factors of the retail marketing mix.

Despite the existence of numerous meta-analyses concerning customer service determinants, to the best of our knowledge, none of these investigations were conducted in the retail industry, specifically focused on grocery-related establishments. Moreover, this is the only research that supplements the results of the meta-analysis with a systematic literature review. Therefore, this study bridges a gap in the literature and represents a significant contribution to the academic community. Additionally, it equips companies and managers with insights into the key service factors in the retail industry from the customers' perspective. Ultimately, this could aid companies in understanding the optimal strategies to increase customer satisfaction and loyalty, attract new clients, and enhance the overall performance of the company.

## LITERATURE REVIEW

### CUSTOMER SERVICE

Customers increasingly insist on not only high-quality products but also superior service that caters to their requirements (Bouzaabia, Bouzaabia, & Capatina, 2013; Ellinger, Daugherty, & Gustin, 1997; Renko & Ficko, 2010; Umair et al., 2019). They expect vendors to deliver products, along with added benefits, that help reduce their costs or augment their revenues (Kearney, 1994).

According to Kursunluoglu (2014), customer service encompasses all activities that enhance the shopping value for consumers. Therefore, if businesses provide commendable service to their customers, they can meet their expectations, leading to increased customer satisfaction (Kursunluoglu, 2014; Oh, 1999). Conversely, if a company fails to fulfill the expected, the customer will likely be discontented and may switch to a competitor (Umair et al., 2019).

Given this, customer service plays a pivotal role in the interaction between companies and their clientele and is increasingly viewed as crucial for industries (Ellinger et al., 1997; Politis, Giovanis, and Binioris, 2014). This is primarily due to globalization (Renko & Ficko, 2010) and changes in the industry environment (Ellinger et al., 1997; Renko & Ficko, 2010; Zhang, Vonderembse, & Lim, 2005). Hence, firms are striving more than ever to differentiate themselves from competitors and satisfy their clients, thereby converting them into loyal customers (Bouzaabia et al., 2013). By retaining customers, firms anticipate an upsurge in sales, leading to enhanced profitability (Umair et al. 2019). Donaldson (1986) encapsulates this by stating that customer service has positive effects on customer satisfaction, corporate image, and profitability.

### **Measuring Customer Service**

Given the distinctive customer service factors between retail and service industries, several authors have developed relevant models catered to the retail sector since 1990.

Foundational models like SERVQUAL and SERVPERF laid the groundwork for other models such as the 51-item model developed by Guiry, Hutchinson, and Weitz (1992); the 24-attribute model designed by Vazquez, Rodríguez, and Ruiz (1995); and the Retail Service Quality Scale (RSQS) formulated by Dabholkar et al. (1996).

The RSQS model, frequently employed across various studies and contexts, includes 28 attributes divided into five main dimensions: physical aspects, reliability, personal interaction, problem-solving, and policy. These dimensions and sub-dimensions help retailers evaluate their service quality in each category and the overall quality, consequently highlighting areas requiring immediate improvement (Das et al., 2010).

Physical aspects measure the appearance of the stores and their employees, the presence of equipment, installations, and visual materials. This dimension also evaluates the convenience of the store, including store layout (Dabholkar et al., 1996). An effective store layout assists customers in product location and ease of movement. Previous studies suggest that store appearance is a crucial factor for customers (e.g., Jain & Aggarwal, 2018; Singh et al., 2010).

Reliability covers the promises stores make to their customers, accurate service delivery, maintaining the right inventory levels, and providing correct information (Dabholkar et al., 1996). By honoring promises, retailers can expect increased customer confidence, leading to loyalty (e.g., Nguyen, Nguyen, Cao, & Phan, 2016; Sivapalan & Jebarajakirthy, 2017).

Personal interaction involves not only employees inspiring confidence but also demonstrating courtesy and helpfulness towards customers (Vazquez, Rodríguez-Del Bosque, Díaz, & Ruiz, 2001). Consistent courtesy and prompt response can boost customer satisfaction, as noted in various studies (e.g., Das et al., 2010; Kitapci, Dortyol, Yaman, & Gulmez, 2013).

Problem-solving encompasses handling returns and exchanges, addressing complaints, and demonstrating sincere interest in resolving issues (Dabholkar et al., 1996). When customers' problems are addressed, they are likely to feel satisfied and continue shopping at the store (Sivapalan & Jebarajakirthy, 2017).

Policy refers to the store's decisions regarding the quality and variety of merchandise, payment methods, operating hours, parking facilities, and pricing (Dabholkar et al., 1996). With an effective retailing policy, customers are likely to continue patronizing the store (Sivapalan & Jebarajakirthy, 2017).

### **Customer Outcomes**

To understand which service attributes are most important to customers, it is necessary to comprehend the outcomes influenced by the performance of those service factors.

In this regard, Bhuian, Balushi, and Butt (2018) and Kumar (2017) identified the repercussions of service quality factors. Kumar (2017) pinpointed store image, customer satisfaction, word-of-mouth communication, intention to switch, and loyalty intentions as primary outcomes of retail service attributes. Bhuian et al. (2018) stressed that

while customer loyalty results from service factors, repeated purchases and intentions to recommend stem from that loyalty. Furthermore, several authors (Elmelegy, Ponnaiyan, & Alnajem, 2017; Espinoza, 1999; Huang, 2009; Jain & Aggarwal, 2018; Nadiri & Tümer, 2009; Siu & Cheung, 2001) identified overall perceived service quality as a variable influenced by service attributes.

Table 1 succinctly presents these five customer outcome measures.

**TABLE 1 – SYNTHESIS OF CUSTOMER OUTCOME MEASURES (OWN ELABORATION)**

Customer outcomes		
<i>Overall service quality</i>	Overall service quality, perceived service quality, retail service quality, service quality, value perceptions, critical failure, overall image	
<i>Customer satisfaction</i>	Customer satisfaction; overall satisfaction, satisfaction with the store	
<i>Customer loyalty</i>	<i>Loyalty</i>	Customer loyalty, customer preference, emotional loyalty, loyalty intention, trust, perceived quality of store brands, retention
	<i>Patronage intention</i>	Repurchase intention, retention, future consume behaviour, intend to buy, intend to shop, intend to switch, intend to reuse
	<i>Intention to recommend</i>	Intend to recommend, word of mouth communication

### ***Overall service quality***

Numerous attributes contribute to shaping customers' perceptions, which vary based on individual viewpoints. As per the model developed by Parasuraman et al. (1985), if these perceptions do not align with customers' expectations, a service quality gap is created. Therefore, overall perceived service quality is recognized as a result of service attributes from the customer's perspective.

### ***Customer Satisfaction***

As discussed earlier, if a company's service meets or surpasses customer expectations, it leads to increased satisfaction. Additionally, Anderson, Fornell, and Lehman (1994) suggest that a customer experiences satisfaction when they respond positively to an aggregate assessment of multiple purchase and consumption experiences. Consequently, satisfaction is not solely a result of service attributes quality, but it also incorporates the overall service quality, positioning it as a key metric of customer outcomes.

### ***Customer Loyalty***

According to Najjar (2019), service-providing companies continuously strive to bolster their customer loyalty. This can be identified in customers as repeat purchase behavior coupled with a psychological bond, as outlined by Kumar (2017). Loyal customers are not just less likely to switch to competitors, but they also tend to spend more than less loyal customers. Alongside repeat patronage, Kumar (2017) highlights that customers' loyalty towards a company leads to positive word-of-mouth communication. Therefore, customer loyalty, including patronage intention and the intention to recommend to others, is viewed as a significant customer outcome.

### ***Patronage Intention***

As per Pan and Zinkhan (2006), the concept of retail patronage intention incorporates two unique aspects: store selection and visit frequency. Store choice pertains to the customers' decision to frequent a specific store, considering past experiences. Conversely, visit frequency relates to the number of times each customer patronizes that store. Various authors have outlined different measures of patronage intention, including the intention to reuse the service (Amorim & Saghezchi, 2014), intention to shop (Das et al., 2010), intention to buy (Nadiri & Tümer, 2009), customer retention (Julian, Ahmed, Wel, & Bojei, 2015), future consumption behavior (Siu & Chow, 2004), intention to switch (Kumar, 2017), and customer repurchase intention (Noyan & Şimşek, 2012).

### ***Intention to Recommend***

Zeithaml, Berry, and Parasuraman (1996) define the intention to recommend as the likelihood and propensity of a customer to suggest and give a positive review about a company to others. Also known as word-of-mouth communication, this idea is deemed a behavioral intention measure resulting from the perceived loyalty of each customer, as corroborated by several authors (Sirohi, McLaughlin, & Wittink, 1998; Siu & Cheung, 2001; and Das et al., 2010).

### **RETAIL INDUSTRY: A FOCUS ON GROCERY STORES**

The retail industry involves selling goods directly to the end consumer, representing trade for consumption rather than resale. The industry comprises various retail establishments, including department stores, discount stores, specialty stores, grocery stores, convenience stores, category killers, and e-tailers (Moore, 2005). Retailers utilize several factors, collectively known as the retail mix, to satisfy customer needs and influence their purchases. This includes merchandising, service offerings, pricing, advertising and promotions, store design, and location (Moore, 2005).

There is a universal understanding among industry practitioners and academics that the retail industry's competitive intensity is escalating in both domestic and international markets (Moore, 2005). This industry is constantly evolving, and from the inception of the first retail store to the present where e-commerce has gained significant importance, the retailer's roles have consistently revolved around accessibility, customer convenience, size convenience, associated services, supply chain management, value chain administration, research, information provision, economic development, and employment generation.

The sale of non-specialized goods with a predominance of food, beverages, or tobacco products is classified within the retail industry by the European Community under NACE code G47.1.1. This category includes hypermarkets, supermarkets, grocery and convenience stores, and other general stores, indicating a wide variety of goods, with food, beverages, or tobacco products as the primary offerings.

### **THEORETICAL FRAMEWORK AND RESEARCH HYPOTHESES**

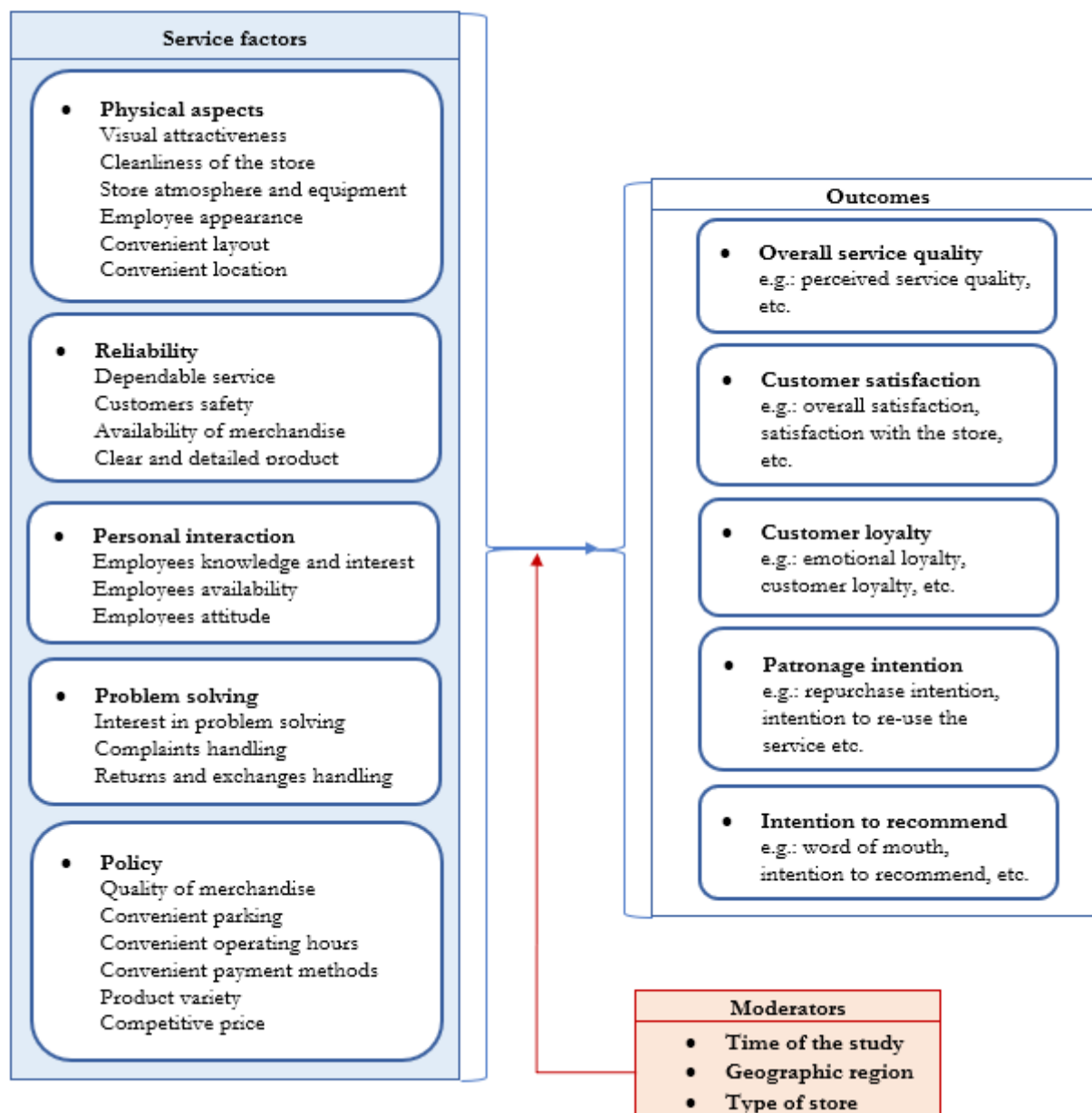
As previously mentioned, the main objective of this research is to identify the key factors impacting customer service in the retail grocery industry. After identifying and understanding the attributes that significantly influence service quality, this study also intends to analyze the effect of moderators on the relationship between service factors and customer outcomes.

Existing literature has extensively studied and analyzed the impact of service attributes on customers. However, authors often use distinct approaches to define criteria. Thus, to yield beneficial and comprehensible results, it's crucial to establish guidelines to compile all data.

The dependent variable, customer outcomes, was analyzed based on the most significant repercussions identified in the literature. To identify the most critical service attributes for customers, the existing consequences can be categorized into service quality, customer satisfaction, customer loyalty, patronage intention, and intention to recommend.

Given the choice of determinants for customer service, a conceptual model was required to encapsulate the wide range of attributes that influence customer decisions. Consequently, the independent variables were grouped into 22 major factors. These include visual attractiveness, store cleanliness, store atmosphere and equipment, employee appearance, convenient layout, convenient location, reliable service, customer safety, merchandise availability, clear and detailed product information, employee knowledge and interest, employee availability, employee attitude, interest in problem-solving, complaints handling, returns and exchanges handling, merchandise quality, convenient parking, convenient operating hours, convenient payment methods, product variety, and competitive pricing.

This research also explores the presence of moderators. Thus, the impact of different factors such as geographic focus, study timeline, and store type on the relationship between service factors and customer outcomes will be analyzed. The research framework is depicted in Figure 1.



**FIGURE 1 – RESEARCH FRAMEWORK (OWN ELABORATION)**

Several studies and models suggest that service attributes broadly impact customers. Hence, the first hypothesis to be tested is:

**H1: Hypothesis 1 – There is a positive correlation between service quality attributes and customer outcomes.**

As the primary objective of this research is to identify which service factors are most significant to customers, it's crucial to determine which attributes have the most positive impact on customer outcomes. Thus, the second hypothesis is formulated to investigate the influence of each service attribute on customer outcomes:



**H2: Hypothesis 2 – Service quality attribute “i” is positively correlated with customer outcome “j.” (“i” = visual attractiveness, store cleanliness, store atmosphere and equipment, employee appearance, convenient layout, convenient location, dependable service, customer safety, merchandise availability, clear and detailed product information, employee knowledge and interest, employee availability, employee attitude, interest in problem-solving, complaints handling, returns and exchanges handling, merchandise quality, convenient parking, convenient operating hours, convenient payment methods, product variety, and competitive price; “j” = overall service quality, customer satisfaction, customer loyalty, patronage intention, and intention to recommend).**

Lastly, the impact of service attributes on customers may differ across various contexts, such as region, the timing of the study, and store type. According to Ahmad, Ihtiyar, and Omar (2014), comparing service quality across countries is essential as it informs retailers about the vital service attributes in diverse environments. This idea is evident in several studies (Ahmad et al., 2014; Espinoza, 1999; Martínez-Ruiz, Jiménez-Zarco, & Cascio, 2011), which show that different cultural groups assign varying importance to service quality dimensions. Concerning the study’s timing, research by Martínez-Ruiz, Blazquez-Resino, Pino, and Capestro (2017) found that the significance of factors changed over different years. Anselmsson and Johansson (2014) investigated the service quality differences between two store formats. Therefore, to examine if any potential factor influences, the third hypothesis to be tested is:

**H3: Hypothesis 3 – The relationship between service attributes and customer outcomes is moderated by certain factors.**

## **METHODOLOGY**

Two distinct methodologies are employed: a systematic literature review supplemented by a meta-analysis.

### **DATA COLLECTION**

The methodological process began with a literature search intended to identify articles relevant to this specific study. The literature review commenced using Scopus and Web of Science databases. The review resulted in the following search terms: “Customer service,” “Service quality,” “Retail service quality,” “RSQS,” “RSQ,” “Retail,” “Grocery,” “Hypermarkets,” “Supermarkets,” “Convenience store,” “Factors,” “Determinants,” “Antecedents,” “Dimensions,” and “Prioritization.”

Following the identification of research papers from the databases, specific inclusion criteria were applied to select studies that measured service quality in the retail industry.

Firstly, studies identifying service factors in the grocery retail industry were incorporated. This inclusion required two distinct evaluations, including studies that analyze the relationship between service attributes and the selected customer outcomes and those recognizing the critical factors of customer service.

Regarding service attributes and customer outcomes, research should have at least one specific independent and one dependent variable relevant to our research question. They must also incorporate a minimum of essential statistical information for the chosen method of meta-analysis.

On the other hand, investigations identifying critical factors for customer service in the retail industry were included. Recognizing clients’ expectations of each service attribute, as suggested by Vazquez et al. (2001), is vital as it provides retailers with information about the most relevant dimensions from the customer perspective. Hence, investigations that explicitly state the most critical factors for excellent service quality, research prioritizing those dimensions, and studies that rank or examine customers’ expectations were incorporated.

Secondly, only original research publications employing data collection methods such as questionnaires, interviews, or focus groups to identify customer service determinants were used.

Lastly, the research is limited to articles published in English or Portuguese between 1990 and 2020 with full-text availability. Table 2 summarizes the criteria used for including or excluding each identified research.

**TABLE 2 – INCLUSION CRITERIA**

Inclusion criteria
1 <sup>st</sup> a) The study includes: studies that analyse the relation between service factors and customer outcomes
1 <sup>st</sup> b) The study includes: researches that identify the critical factors for customer service in the retail industry
2 <sup>nd</sup> Minimum number of analysed relations: researches must include at least one service attribute and one customer outcome
2 <sup>nd</sup> Statistical data: if the study analyses the relation between service attributes and customer outcome, that investigation must incorporate the right amount of statistical data for the meta-analysis method chosen
3 <sup>rd</sup> Data type: Original research papers
4 <sup>th</sup> Language of the article: English or Portuguese
5 <sup>th</sup> Published years: between 1990 and 2020
6 <sup>th</sup> Availability: Full-text availability

### **CODIFICATION PROCESS**

We developed a coding scheme divided into three sections: basic paper information, critical methodological details, and data extracted from the results.

The first segment encompasses methodological aspects of each study, such as research title, author, journal, year, geographic region, store type, number of associated companies, data collection method, sample size, response rate, and the instrument used.

The second subdivision includes service attributes in the retail industry and customer outcomes influenced by these attributes. Service determinants are treated as independent variables and, to facilitate the analysis, they were condensed into 22 factors based on the Retail Service Quality Scale (RSQS) model developed by Dabholkar et al. (1996). Table 3 provides a detailed breakdown of the methodological aspects.

In the third and final section of data collection, the compilation of specific meta-analysis details is articulated. Thus, when quantitative information was available, it was examined and collected. Upon careful review of the studies, it was noted that most cases used regression analyses including standardized beta coefficients ( $\beta$ ), representing the impact of each dimension on various customer outcomes. Other studies presented different or additional information (e.g., t-tests, correlation  $r$ , p-values). Despite the differences in analysis methodologies, it is necessary to convert each coefficient value into the same effect size metric (Goh, Hall, & Rosenthal, 2016). Therefore, given this research's objective to assess the impact of each service factor on customer outcomes - measured by the correlation and regression between variables - Pearson's  $r$  was selected as the metric to measure effects.



**TABLE 3 – METHODOLOGICAL ASPECTS CODIFICATION**

Methodological aspects coded
<b>1<sup>st</sup> Year of the study:</b> 1990s, 2000-2009, 2010-2014, 2015-2020
<b>2<sup>nd</sup> Geographic region:</b> Asia, Africa, Europe, North America, South America, Several
<b>3<sup>rd</sup> Type of store:</b> Several Retail stores, Supermarkets, Hypermarkets, Minimarkets, Grocery, Convenience stores
<b>4<sup>th</sup> Number of associated companies:</b> 1 to 3, 4 to 6, 7 to 9, 10 or more companies, N.A.
<b>5<sup>th</sup> Type method of selecting data:</b> Survey, Interviews
<b>6<sup>th</sup> Sample size:</b> Below 100, 100 to 300, 300 to 500, 500 to 750, 750 to 1000, Above 1000
<b>7<sup>th</sup> Response Rate:</b> Below 40%, 40 to 80%, Above 80%, N.A.
<b>8<sup>th</sup> Instrument employed:</b> RSQS, SERVQUAL, PSQ scale, ECSI, N.A.
<b>9<sup>th</sup> Number of service attributes:</b> 1 to 5 attributes, 6 to 10 attributes, 11 to 15 attributes, more than 16 attributes
<b>10<sup>th</sup> Number of customer outcomes:</b> 1 outcome, 2 outcomes, 3 outcomes, 4 outcomes

Upon completing the data collection, the various analyses diverge. While studies with quantitative data such as correlation or regression coefficients proceed with the methodology outlined by Field and Gillet (2010), those without such statistics are incorporated into the systematic literature review section. Ultimately, a final qualitative synthesis is performed for these studies, as well as for investigations included in both analyses. This synthesis also considers the classifications applied to service quality attributes in the included publications.

### AGGREGATION OF EFFECT SIZES

According to Field and Gillet's (2010) process, the fourth step, following the collection of relevant information and effect sizes from the reviewed studies, is conducting the meta-analysis itself. By aggregating effect sizes from various studies, the population effects can be estimated.

Field and Gillet (2010) suggest two paths to conceptualize meta-analysis: fixed-effects models and random-effects models. The fixed-effect model assumes that the average effect size from the population of included studies is fixed or easily predictable. In contrast, random-effects models are used when the average effect size varies significantly from study to study. Consequently, sample effect sizes should be homogeneous for fixed-effects models and heterogeneous for random-effects models (Field & Gillet, 2010).

At this point, we reference the process conducted by Goh et al. (2016). As previously mentioned, existing correlation coefficients  $r$  were examined to complete data analysis. Since most studies did not report correlation  $r$ , we collected different elements such as  $\beta$  values, which were later converted into a correlation coefficient. The procedure recommended by Peterson and Brown (2005) was employed for this conversion. After converting all measures into the same effect size, it was necessary to calculate the weighted mean effect size, giving more substantial studies more weight. Initially, Fisher's  $z$  transformation for normalization was applied using the Excel function " $=fisher(x)$ ". Then, the effect sizes, represented as  $r\bar{z}$  were combined meta-analytically using a fixed-effects approach. However, random-effects models were evaluated here as they account for differences between studies due to distinct participants or treatments. Knoll and Matthes (2017) argue this approach is more realistic as respondents and study contexts vary across investigations. The general  $p$ -value of all included studies was summarized using the Stouffer test, and the combined  $Z$  was estimated. The random-effects approach required averaging the effect sizes for each combination of service factor and customer outcome.

These values will be classified according to Cohen's (1988) guidance, where an effect size is considered small if the coefficient is near 0,10, medium if near 0,30, and large if around 0,50. Distinct data points were analyzed using the estimated  $p$ -values for each aggregation of dependent and independent variables.

## MODERATOR ANALYSIS

After the initial analysis, researchers typically explore potential advanced analyses, such as the examination of moderator variables. In this study, an available R software package was used to compare effect sizes based on moderator variables. This methodology allows us to test the impact of multiple potential moderators, including geographic region, study period, and store type.

## MAIN RESULTS

### RESEARCH SELECTION PROCESS

The process began with a literature search using the main search strings through selected online databases covering the period from 1990 to 2020. Initially, 1429 studies were found across the two databases, Scopus ( $n=786$ ) and Web of Science ( $n=643$ ). An additional 4 studies already selected were identified in the Scopus database, bringing the total to 1433 studies. Many publications were duplicated ( $n=316$ ) one or more times. At the next stage, 543 publications unrelated to the selected sector or other non-personal selling methods were excluded. The bulk of these related to retail banking ( $n=181$ ) and the apparel industry ( $n=40$ ), and studies focusing on electronic retailing ( $n=206$ ) were also discarded, reducing the total studies to 539. A significant number of studies ( $n=484$ ) were not included in the final sample due to various reasons: 412 did not meet the main research goal, 30 did not include primary data, 7 had a publication date before 1990, and 35 were unavailable.

Ultimately, 55 studies were included. Upon reviewing the information in these studies, we found that only 35 provided sufficient statistical information for the meta-analysis. Four of these also yielded significant information for the systematic literature review. The remaining 20 were reviewed and the information synthesized. Figure 2 summarizes the article selection process.

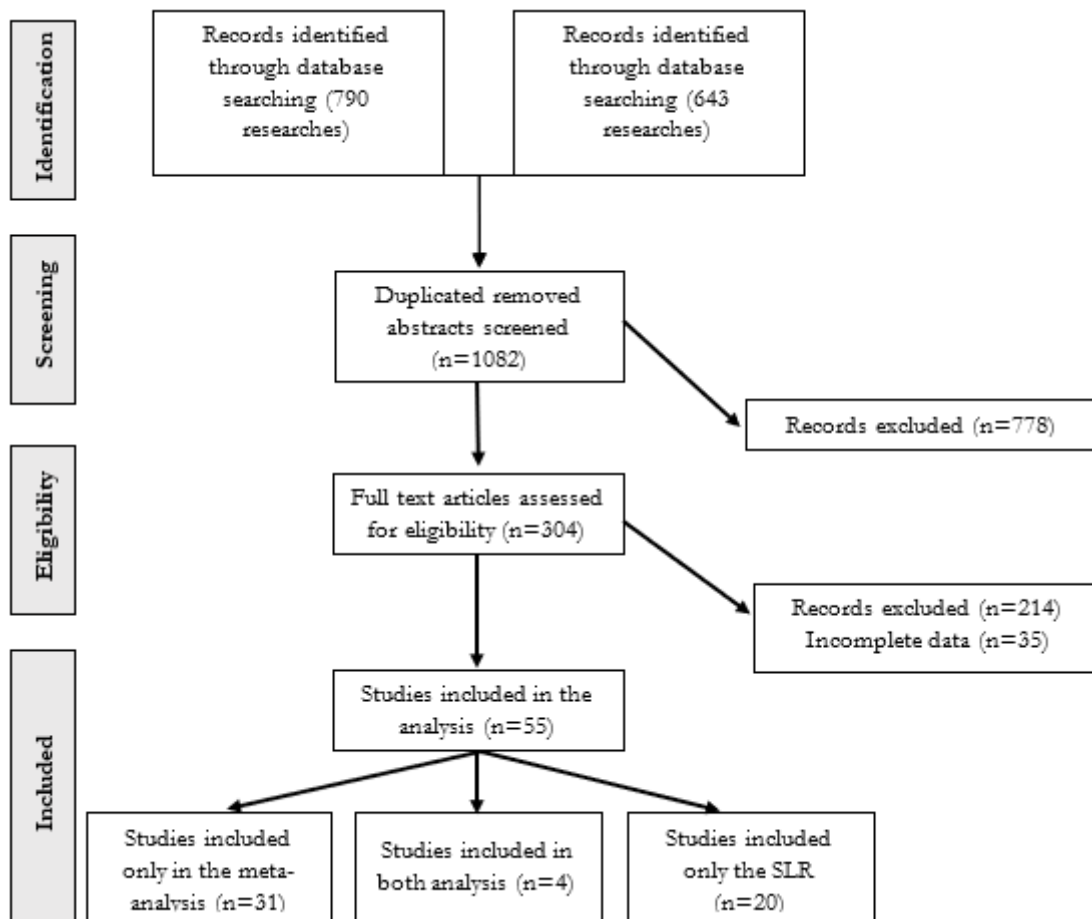


FIGURE 2 – PROCESS OF ARTICLES SELECTION

## FINDINGS AND ANALYSIS

This section examines and discusses the results. It first presents the findings from the systematic literature review, followed by the results of the meta-analysis.

### Systematic Literature Review Findings

Among the studies that identify or prioritize critical factors for customer service in the retail industry, 24 publications were found.

Of these 24 studies, the vast majority were conducted either between 2010-2014 (45,8%) or between 2015-2020 (41,7%). More than half of the studies included in the systematic literature review were conducted in Asia, used surveys exclusively in their research, and did not specify the industry coverage. Supermarkets were the most frequently researched store type, and both SERVQUAL and RSQS were widely used as foundational instruments.

Table 4 lists all critical factors for customer service in the retail industry, along with their frequency and percentage of occurrence in the 24 selected studies. Table 5 shows the number of times each service factor was considered among the top three critical factors.

Despite the existence of 22 factors, only 11 were identified as critical for customers in the retail industry, as shown in Table 4. This is because, in line with other researchers (Khan & Khan, 2013), we deemed the factors that appeared in over 50% of studies as the most important elements.

**TABLE 4 – LIST AND FREQUENCY OF THE SERVICE FACTORS**

Service factors	Perc. %	Frequency (n=24)	Service factors	Perc. %	Frequency (n=24)
Dependable service	91,7%	22	Cleanliness of the store	45,8%	11
Employees attitude	87,5%	21	Convenient parking	45,8%	11
Quality of merchandise	66,7%	16	Customers safety	45,8%	11
Availability of merchandise	62,5%	15	Convenient payment methods	41,7%	10
Employees knowledge and interest	62,5%	15	Product variety	37,5%	9
Competitive price	62,5%	15	Complaints handling	37,5%	9
Visual attractiveness	58,3%	14	Convenient operating hours	37,5%	9
Store atmosphere and equipment	54,2%	13	Returns and exchanges handling	33,3%	8
Convenient layout	54,2%	13	Convenient location	29,2%	7
Employees availability	54,2%	13	Clear and detailed product information	29,2%	7
Interest in problem solving	50,0%	12	Employees appearance	12,5%	3

Consequently, the key service factors deemed significant by customers encompass items from all five service dimensions: physical aspects (visual attractiveness, store atmosphere and equipment, and convenient layout); reliability (dependable service, and availability of merchandise); personal interaction (employees' knowledge and interest, employee availability, and employee attitude); problem solving (interest in problem resolution); and policy (quality of merchandise and competitive prices).

The most frequently mentioned service factor was dependable service (91,7%). As indicated by Table 5, within the selected literature, this attribute was the second most frequently acknowledged as significant (n=6). This observation is consistent across numerous studies from various geographic regions (e.g., Suresh, Mahadevan, & Abhishek, 2019; Tešić, 2020).

**TABLE 5 – NUMBER OF TIMES THAT EACH SERVICE FACTOR IS CONSIDERED THE FIRST, SECOND AND THIRD MOST IMPORTANT**

Service factors	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	Service factors	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>
Dependable service	6	3	5	Cleanliness of the store	2	3	1
Employees attitude	3	3	3	Convenient parking	0	1	3
Quality of merchandise	7	2	1	Customers safety	2	4	2
Availability of merchandise	5	2	3	Convenient payment methods	1	0	0
Employees knowledge and interest	0	3	4	Product variety	1	0	3
Competitive price	2	4	4	Complaints handling	0	1	1
Visual attractiveness	2	1	2	Convenient operating hours	2	0	0
Store atmosphere and equipment	1	0	0	Returns and exchanges handling	0	1	0
Convenient layout	2	3	0	Convenient location	2	2	0
Employees availability	3	1	1	Clear and detailed product information	1	2	0
Interest in problem solving	1	1	0	Employees appearance	1	0	0

Employee attitude was the next most prevalent service factor (87.5%) and was deemed the most significant dimension in several studies (e.g., Lin, 2010; Ulkhaq et al., 2019). In other studies, despite the presence of more significant attributes, employee attitude still held a high rank in terms of its service provision to customers (e.g., Ahmad et al., 2014; Naik, Gantasala, & Prabhakar, 2010; Souza, Ferreira Filho, Santos, Martins, & Ramos, 2016).

The quality of merchandise was identified in 16 out of the 24 selected studies (66,7%), and it was considered the most important factor, surpassing dependable service, in most instances (n=7) (e.g., Amorim & Saghezchi, 2014; Nilsson, Gärling, Marell, & Nordvall, 2015; Wang, Zhao, & Qiao, 2011).

Then, with a frequency of 62,5%, the availability of merchandise, employees' knowledge and interest, and competitive price emerged. Even though these three attributes appeared with the same frequency, their perceived importance varied. Employee knowledge and interest was often identified as the second or third most important attribute (e.g., Haming, Murdifin, Syaiful, & Putra, 2019; Souza et al., 2016), but it was never recognized as the primary service item in any of the studies. In contrast, the availability of merchandise was deemed the most important factor in five studies (e.g., Adam, Tengeh, & Cupido, 2018; Chuang, 2010; Lin, 2010), and competitive price was in one (Lin, 2010).

Subsequently, with a frequency of 58,3%, visual attractiveness appeared. This factor was deemed the most critical in two distinct studies conducted in Asia between 2010 and 2014 (Ahmad et al., 2014; Singh et al., 2010).

Finally, store atmosphere and equipment, convenient layout, and employees' availability each with 54,2%, and interest in problem solving with 50% incidence, were considered the least common factors in the selected literature. While Singh et al. (2010) found store atmosphere and equipment and convenient layout to be the most important

factors, Lin (2010) found convenient layout and employees' availability to be of highest importance. Additionally, employees' availability was considered the most significant element by Feinberg (1995), and interest in problem-solving was deemed the most important by Haming et al. (2019).

Therefore, based on the publications included in the systematic literature review, the most important service attributes for customers are dependable service, employees' attitude, quality of merchandise, availability of merchandise, employees' knowledge and interest, and competitive price.

### **Meta-analysis Findings**

For the meta-analysis, 35 studies were included. The application of Fisher's method yielded the  $r\bar{z}$ , which facilitated various levels of analysis. First, the impact of service factors on the measures of outcomes (overall service quality, customer satisfaction, customer loyalty, patronage intention, and intention to recommend) was analyzed. Then, the influence of service attributes on customer outcomes was evaluated in light of the existence of distinct moderators. Table 6 displays the results concerning the effect of service attributes on consumer outcomes. In total, 103 effects were identified from the data collected. Similar to the systematic literature review, Asia was the geographic region with a higher number of studies, survey was the preferred data collection method, and most of the publications did not disclose the industry coverage. However, in this case, more studies were conducted between 2015 and 2020, more research was carried out in various types of stores (37,1%), and the RSQS instrument was most frequently used (45,7%).

Applying Fisher's method and considering the sample size allowed for the calculation of the weighted mean of the effect sizes. This value enabled the assessment of the significance of each pair of variables by analyzing the existing p-values. With the weighted mean analysis, the random effects for each pair of variables were estimated.

The first hypothesis tested was the assumed positive link between service factors and customer outcomes. Hence, the null hypothesis H1 states: service quality attributes are not positively correlated with customer outcomes in the retail industry.

In order to analyze the relationships between service quality attributes and customer outcomes, only two pairs of relationships could be considered at a time. For each pair of variables under analysis, the weighted  $r\bar{z}$  was calculated. Subsequently, random effects could be estimated. Table 6 presents the coefficients and their significance concerning the random approach. Estimates were based only on random-effects models since fixed-effects models assume that all studies included in the analysis are alike and have the same true effect size (Knoll & Matthes, 2017). Afterward, Stouffer's Z test was applied. The results demonstrate that service quality attributes are significantly positively correlated with customer outcomes, as the obtained Z combined with the corresponding p-value was  $<0,00001$ . Therefore, the null hypothesis can be rejected.

The second goal of this research is to identify whether individual service quality attributes are positively correlated with customer outcomes. Thus, the corresponding null hypothesis H2 states: service quality attribute  $i$  is not positively correlated with customer outcome  $j$ , where  $i$  represents visual attractiveness, cleanliness of the store, store atmosphere and equipment, employee appearance, convenient layout, convenient location, dependable service, customer safety, availability of merchandise, clear and detailed product information, employees' knowledge and interest, employees' availability, employees' attitude, interest in problem-solving, complaints handling, returns and exchanges handling, quality of merchandise, convenient parking, convenient operating hours, convenient payment methods, product variety, and competitive price; and  $j$  represents overall service quality, customer satisfaction, customer loyalty, patronage intention, and intention to recommend.

Table 6 indicates that the majority of the 22 service attributes are positively correlated with all five established dependent variables. However, distinct levels of significance for each pair of variables were detected.

**TABLE 6 – DETERMINANTS OF CUSTOMER OUTCOMES  
(CORRELATION EFFECT, LB – LOWER BOUND, UB – UPPER BOUND)**

Service factors	Customer outcomes																	
	Overall Service quality			Customer Satisfaction			Customer Loyalty			Patronage intention			Intention to recommend					
	Effect	LB	UB	Effect	LB	UB	Effect	LB	UB	Effect	LB	UB	Effect	LB	UB			
Physical aspects	Visual attractiveness	0,317	0,196	0,429	0,340	0,222	0,448	0,226	0,035	0,402	0,249	0,167	0,327	0,301	0,192	0,403		
	Cleanliness of the store	0,347	0,258	0,431	0,372	0,192	0,527	0,294	0,129	0,442	0,238	0,130	0,341	0,239	0,095	0,374		
	Store atmosphere and equipment	0,299	0,178	0,411	0,412	0,272	0,534	0,259	0,109	0,398	0,253	0,155	0,346	0,301	0,192	0,403		
	Employee appearance	0,325	0,180	0,457	0,303	0,162	0,431	0,373	0,262	0,474	0,420	0,378	0,461					
	Convenient layout	0,244	0,103	0,376	0,366	0,180	0,528	0,259	0,109	0,398	0,239	0,120	0,351	0,268	0,157	0,373		
	Convenient location	0,437	0,329	0,534	0,384	0,204	0,539	0,310	0,216	0,399								
Reliability	Dependable service	0,352	0,220	0,472	0,339	0,246	0,427	0,220	0,052	0,377	0,265	0,126	0,395	0,237	0,173	0,299		
	Customers safety	0,407	0,340	0,470	0,342	0,225	0,449	0,358	0,046	0,606	0,336	0,241	0,426	0,256	0,187	0,322		
	Availability of merchandise	0,371	0,285	0,450	0,337	0,249	0,419	0,353	0,137	0,537	0,306	0,124	0,468	0,242	0,181	0,301		
	Clear and detailed product information				0,352	0,218	0,473	0,242	0,043	0,423				0,419	0,322	0,506		
Personal interaction	Employees knowledge and interest	0,398	0,311	0,479	0,371	0,259	0,474	0,342	0,207	0,464	0,372	0,236	0,494	0,235	0,163	0,305		
	Employees availability	0,361	0,277	0,440	0,358	0,254	0,454	0,352	0,197	0,491	0,370	0,190	0,525	0,241	0,149	0,329		
	Employees attitude	0,411	0,328	0,488	0,373	0,281	0,458	0,353	0,201	0,489	0,383	0,214	0,530	0,239	0,165	0,311		
	Interest in problem solving	0,322	0,189	0,443	0,259	0,125	0,383	0,147	0,026	0,263	0,330	0,165	0,478	0,233	0,084	0,372		
Problem solving	Complaints handling	0,332	0,150	0,492	0,414	0,140	0,629	0,176	-0,097	0,424	0,254	0,132	0,369	0,188	0,015	0,351		
	Returns and exchanges handling	0,334	0,202	0,454	0,355	0,207	0,488	0,151	-0,019	0,313	0,336	0,157	0,494	0,308	0,180	0,425		
	Quality of merchandise	0,403	0,325	0,475	0,435	0,343	0,518	0,330	0,217	0,433	0,235	0,151	0,315	0,272	0,175	0,364		
Policy	Convenient parking				0,264	0,113	0,403	0,269	0,019	0,487	0,178	0,054	0,297	0,212	0,102	0,317		
	Convenient operating hours	0,312	0,197	0,418	0,427	0,262	0,568	0,228	0,071	0,373	0,342	0,026	0,596	0,236	0,122	0,344		
	Convenient payment methods	0,258	0,182	0,331	0,356	0,275	0,432	0,228	0,071	0,373	0,205	0,121	0,287	0,250	0,156	0,340		
	Product variety	0,380	0,276	0,474	0,396	0,244	0,529	0,386	0,319	0,449				0,313	0,196	0,421		
	Competitive price	0,182	-0,127	0,458	0,302	0,189	0,406	0,095	-0,086	0,271	0,368	0,272	0,456	0,313	0,196	0,421		

Respectively significant at 0,001; 0,01; and 0,05; and Non Significant



In terms of physical aspects, the outcomes imply that all six included attributes significantly influence overall service quality, customer satisfaction, and customer loyalty. As per Cohen's (1988) classification, the majority of these relationships are classified as medium due to the effect sizes for these three results being close to 0,3. The data indicates that a convenient location is the principal determinant of overall service quality (0,437), while the store atmosphere and equipment primarily drive customer satisfaction (0,412). Employee appearance, however, plays a crucial role in fostering customer loyalty (0,373) and patronage intention (0,420). Unfortunately, due to insufficient data, it wasn't feasible to examine the correlations between employee appearance and recommendation intention, or between convenient location and both patronage intention and recommendation intention. For the remaining pair of variables, a medium influence of the attributes on patronage intention and intention to recommend was discovered.

In the reliability dimension, all attributes emerged as critical determinants of satisfaction and recommendation intention, with p-values <0,001. Within this dimension, dependable service and availability of merchandise were the only factors that demonstrated significance across all five customer outcomes. While customer safety has the most significant impact on overall service quality (0,407) and patronage intention (0,336), clear and detailed information stands out in terms of customer satisfaction (0,352) and recommendation intention (0,419). When it comes to customer loyalty, customer safety did not show any significance, while availability of merchandise had the greatest influence.

All personal interaction factors displayed a positive correlation with all customer outcomes (p-values <0,001). These factors tend to have a medium-to-large effect on customer outcomes, with the exception of recommendation intention, where the service attributes' influence is estimated to be medium-to-small. Employee attitude was the principal driver for all customer outcomes, excluding recommendation intention. Here, employees' availability had a greater effect (0,241).

The problem-solving dimension revealed a non-significant effect of both complaints handling and returns and exchanges handling on customer loyalty, implying that interest in problem-solving is the only factor impacting customer loyalty (0,147). The data also demonstrated a medium impact of the three included factors on the remaining four customer outcomes. It should be noted that while returns and exchanges handling is a critical factor for overall service quality (0,334), patronage intention (0,336), and recommendation intention (0,308), complaints handling stands out for customer satisfaction (0,414).

For the policy dimension, the findings suggest that quality of merchandise, convenient operating hours, and convenient payment methods are key factors influencing patronage as they are positively associated with all five outcomes. Due to limited information, the relationships between convenient parking and overall service quality and product variety with customer loyalty and patronage intention could not be analyzed. Given these two independent variables, a positive significance for all the remaining correlations was found. Competitive pricing is a key determinant of customer satisfaction, patronage intention, and recommendation intention (p-value <0,001). However, this attribute's influence on customer loyalty and overall service quality was not detected. The quality of merchandise is the most crucial factor and has a medium-to-large effect on overall service quality (0,403) and customer satisfaction (0,435). This differs from the remaining outcomes, where competitive pricing is the primary driver for patronage intention (0,368) and recommendation intention (0,313), and product variety for customer loyalty (0,386).

Hence, in light of the meta-analysis results, all five dimensions include factors that were significant for all five customer outcomes: physical aspects (visual attractiveness, store cleanliness, store atmosphere and equipment, and convenient layout); reliability (dependable service and merchandise availability); personal interaction (employees' knowledge, interest, and availability); problem-solving (interest in problem-solving); and policy (quality of merchandise, convenient operating hours, and convenient payment methods).

These findings align with those of Blut et al. (2018), who found that service quality attributes directly influence customer outcomes across the entire retail industry, including e-tailing and specialized stores. Blut et al. (2018) also discovered that all attributes affect customer satisfaction. However, our study differs somewhat because even though product quality is positively correlated with all outcomes, other attributes also exhibited strong positive impacts on the established customer outcomes. This difference can be attributed to the fact that our research primarily focuses on food-related retail stores.

Based on the results obtained, we can confidently support Hypothesis 2. The third hypothesis, which posits the influence of moderators on the relationship between service quality attributes and customer outcomes, was also tested. The considered moderators were time, region, and store type. The null hypothesis H3 states: the relationship between service attributes and customer outcomes is not affected by moderators (time, geographic region, store type).

Before examining the final p-values of the relationships between service quality attributes and customer outcomes moderated by other variables, it was noted that this analysis was only conducted on 56 out of the 103 pairs of variables. Due to data limitations, it was impossible to perform this analysis for the 'intention to recommend' outcome.

In testing the moderating effect of geographic region, it was observed that it had more positive significance in relationships between attributes and overall service quality. The correlation between service attributes and both customer satisfaction and patronage intention were also affected by location. For these customer outcomes, Asia followed by Europe, were deemed significant most frequently. Store atmosphere and equipment, convenient layout, and dependable service represent the attributes most affected by Europe's geographic region in terms of overall service quality. Conversely, the relationships between merchandise availability, employees' attitude, and convenient operating hours with patronage intentions were significantly influenced by studies conducted in Asia. Additionally, the pair of variables consisting of customer satisfaction and convenient operating hours was also affected by location.

A review of the results showed that the South America cases were not as significant for customer service attributes as the other geographic regions. This may be due to the underdevelopment of countries in this region. Only in the correlation between visual attractiveness and overall service quality was a significant effect of the South America region detected (p-value <0,001). This aligns with Espinoza's (1999) findings that physical aspects were the most important dimension for customers from Peru.

The analysis revealed that the time of study had a significant negative effect on several correlations. Patronage intention, followed by overall service quality and customer satisfaction, were the outcomes most affected by the time of investigation when related to service attributes. Compared to geographic region, the time of study is estimated to have less significance as a potential moderator. Merchandise availability and convenient operating hours were the attributes most frequently affected by the period.

The time of study can also have an impact on customers, although less likely than geographic regions. For Martínez-Ruiz et al. (2017), customer satisfaction may change over time due to market development and economic trends. Their study found that before an economic downturn, merchandise quality was the main service attribute. This changed over the years, with convenient location, personal interaction, and a pleasing shopping environment gaining significance post-depression. Considering the economic crisis that occurred between 2008 and 2013, this supports the earlier findings. This is illustrated by the negative effect observed in the relationship between store atmosphere and equipment and convenient layout with overall service quality for the years 2000-2010, and the positive impact of these factors on customer loyalty for the period 2015-2020.

Hardly any correlation was significantly impacted by the store format. The only instance was the negative effect of both grocery and hypermarkets on the link between convenient operating hours and customer satisfaction.

Many of the p-values are significant at 5%, leading us to reject the null hypothesis of the presence of moderators, such as geographic region and time of the study, in the relationship between service attributes and customer outcomes. Therefore, Hypothesis 3 is supported.

This research offers practical implications for retail managers, especially regarding the determinants of service attributes for food-related retail establishments. The attributes having the highest impact on customer outcomes, such as overall service quality, customer satisfaction, and customer loyalty, include dependable service, quality and availability of merchandise, and employees' attitude, knowledge, and interest. Hence, managers may wish to invest in:

- employee training practices for personal and social skill development,
- inventory systems that favor merchandise availability like lean management or periodic review systems,

- supplier selection processes to ensure higher merchandise quality, and
- quality control systems at the source or upon merchandise arrival to the company.

This study enhances our understanding of the effect of service factors on customer outcomes and offers direction for future research. Possible research paths include:

- comparing electronic retail with traditional store retail since e-channels are rapidly replacing traditional ones;
- assessing the sociodemographic of respondents to detect any variations between customer characteristics;
- studying the impact of other moderators like economic conditions or pandemic situations, such as COVID-19, to identify the effect of service quality attributes on customers in different contexts.

Finally, a crucial takeaway for researchers is the importance of reporting their full correlation matrix among all dependent and independent variables when using regression-based methods. Such transparency will bolster the rigor of research and make data accessible to other researchers.

## CONCLUSION

The aim of this research was to identify the service attributes that are pivotal to customers in the retail sector, with a particular emphasis on the grocery retail industry. To achieve this, data from previous studies identifying critical service attributes in the retail industry were collated. This was followed by a combined systematic literature review and meta-analysis.

The systematic review and meta-analysis unveiled a significantly positive correlation between service quality attributes and customer outcomes in the grocery retail industry. Therefore, managers ought to consider these service attributes in their decision-making processes.

The systematic literature review's findings revealed that dependable service, coupled with employees' attitude, the quality and availability of merchandise, employees' knowledge and interest, and competitive pricing were frequently noted attributes in the reviewed literature. Notably, the quality of merchandise and dependable service were the most prioritized factors across most studies.

The meta-analysis showed that many service factors positively impacted different outcome variables. However, certain factors exhibited major significance ( $p$ -value  $<0.001$ ) across all outcomes. These factors encompassed personal interaction attributes, customer safety, convenient operating hours, convenient payment methods, and quality of merchandise. Moreover, factors such as visual attractiveness, store cleanliness, dependable service, merchandise availability, interest in problem-solving, convenient operating hours, and convenient payment methods, demonstrated significant impacts on overall service quality, customer satisfaction, customer loyalty, patronage intention, and intention to recommend.

Consequently, after conducting both analyses, it was concluded that the relationships between customers and employees, dependable service, and the continuous availability of quality merchandise were universally recognized as crucial factors for customers. As such, it is advisable for retail managers to implement strategies to enhance these factors.

Thus, this study offers actionable insights for managers by identifying key service quality attributes requiring attention and improvement. This investigation fills a research void, as it is the only study that amalgamates both a meta-analysis and a systematic literature review to highlight the most important service factors for customers in the retail industry, particularly non-specialized stores. Hence, this research represents a substantive contribution to the academic community.

Despite the comprehensive efforts to encapsulate as many findings as possible, this study does have some limitations. Firstly, the analysis is confined to a limited number of studies. This limitation is due to the paucity of literature about the relationship between service attributes and customer outcomes in generalist stores. As such, this area could be explored in further research to provide more valuable insights for managers and academics regarding

the most crucial customer services. The second limitation pertains to the conversion of statistical coefficients to Pearson's  $r$ . Although this conversion is employed extensively in many studies, including several similar studies in this meta-analysis, the  $\beta$  coefficient to  $r$  conversion recommended by Peterson and Brown (2005) is not entirely accurate. However, given the high prevalence of studies providing only regression coefficients as statistical data, it was imperative to include these investigations. The benefits of including these analyses outweigh the effects of excluding them, which would reduce the sample size. A key takeaway from this is the necessity for researchers using regression-based methods to always report their full correlation matrix among all dependent and independent variables. This transparency will enhance the rigor of research and make data accessible to other researchers. Finally, future research could investigate the impact of other moderating factors such as economic conditions or pandemic situations like COVID-19, to discern the effects of service quality attributes on customers in diverse contexts.

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